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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/048,119

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EXAMINER

AGHDAM, FRESHTEH N

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

12/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/048,119	Applicant(s) GIECK, REINER	
	Examiner FRESHTEH N. AGHDAM	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed August 13, 2008 have been fully considered but they are not persuasive.

Applicant's Argument(s):

Regarding claims 1-10, page 5, the applicant argues the claimed subject matter "determining in a test setup and storing in a table at least one transmission method, with at least one transmission speed that represents a maximum data throughput rate for different stored line parameters of lines" is not taught or suggested by Goodson.

Examiner's Response:

Regarding the argument set forth above, the examiner disagrees with the applicant because Goodson teaches determining in a test setup (training period) and storing in a table (lookup table in memory) at least one transmission method, with at least one transmission speed that represents a maximum data throughput rate for different stored (in a lookup table in memory) line parameters of a line (col. 9, lines 53-56).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-10 are rejected under 35 U.S.C. 101 as not falling within one of the four statutory categories of invention. While the claims recite a series of steps or acts to be

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performed, a statutory “process” under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing (Reference the May 15, 2008 memorandum issued by Deputy Commissioner for Patent Examining Policy, John J. Love, titled “Clarification of ‘Processes’ under 35 U.S.C. 101”). The instant claims neither transform underlying subject matter nor positively tie to another statutory category that accomplishes the claimed method steps, and therefore do not qualify as a statutory process.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodson et al (US 5,715,277).

As to claim 1, Goodson discloses a method of data transmission comprising: determining and storing in a table (e.g. in a memory including at least a lookup table) at least one transmission method, with at least one transmission speed (e.g. carrier frequency/ symbol rate) that represents a maximum data throughput rate (e.g. maximum bit rate) for different line parameters of a line (e.g. SDR value, line attenuation, and so forth); measuring line parameters of a line (e.g. distortion; Col. 1,

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lines 32-60) using at least one transmission method (e.g. probe signals L1 and L2); and selecting a transmission method having a transmission speed in which the measured line parameters are most compatible (Col. 9, lines 30-67, Col. 11, lines 36-67). Goodson does not expressly disclose determining and storing in a table at least one transmission method with at least one transmission speed that represents a maximum data throughput rate for different line parameters of lines. However, one of ordinary skill in the art would recognize that each modem (such as modems 100 and 101) may communicate with more than one other modem. Therefore, it would have been obvious to one of ordinary skill in the art to include more than one lookup table in memory, wherein each lookup table contains information of at least one transmission method with at least one transmission speed that represents a maximum data rate for different line parameters of lines in order to save space in said modem or reduce size of said modem.

As to claim 2, Goodson discloses the line parameters are represented by the attenuation, timing frequency offset (running time), and interference (additive noise or channel induced noise distortion) of the line (Fig. 8, means 825; col. 5, lines 20-33; col. 10, lines 21-30). Goodson does not expressly disclose the line parameters are represented by the running time of the line. However, one of ordinary skill in the art would recognize that the more line parameters (such as running time, carrier frequency offset, envelope delay distortion, and so forth) measured the higher the accuracy of the selected transmission method and transmission speed in view of the maximum allowable data throughput is. Therefore, it would have been obvious to one of ordinary

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skill in the art to measure the running time in addition to the attenuation and interference for the reason stated above.

As to claim 3, Goodson discloses the running time (timing frequency offset) is determined by a measurement of the phase difference between two signals with different frequencies, one of the two signals formed according to the transmission method (col. 4, lines 56-63; col. 5, lines 20-33; col. 10, lines 21-30).

As to claim 4, Goodson discloses the maximum data rate for different line parameters is determined with different transmission methods and transmission speeds, by selecting the transmission methods in the frequency range of which the line parameters demonstrate the least variations (Fig. 8, means 829 and 840; Col. 9, lines 30-67, Col. 11, lines 36-67). Goodson does not expressly disclose the line parameters are represented by the running time of the line. However, one of ordinary skill in the art would recognize that the more line parameters (such as running time, envelope delay distortion, and so forth) measured the higher the accuracy of the selected transmission method and transmission speed in view of the maximum allowable data throughput is. Therefore, it would have been obvious to one of ordinary skill in the art to measure the running time in addition to the attenuation and interference for the reason stated above.

As to claim 10, Goodson discloses determining in a test set up and storing in the table, a wide variety of transmission procedures and line properties at different frequencies and frequency ranges (Col. 2, lines 25-47).

Allowable Subject Matter

Claims 5-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gross et al (US 6,549,520) see column 24, lines 30-40.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to FRESHTEH N. AGHDAM whose telephone number is (571)272-6037. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Freshteh N Aghdam/

Examiner, Art Unit 2611

/Chieh M Fan/

Supervisory Patent Examiner, Art Unit 2611